Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Per.: \_\_\_\_\_\_\_\_

**Relationships: Chords and Circles**

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| **If…** | **then** |
| **If two chords in a circle are congruent,** | then they determine two central angles that are congruent. |
| **If two chords in a circle are congruent,** | then their intercepted arcs are congruent. |
| **If two chords in a circle are congruent,** | then they are equidistant from the center. |
| **If a perpendicular is drawn from the center of the circle to a chord,** | then the perpendicular is a bisector of the chord. |
| **The perpendicular bisector of a chord** | passes through the center of a circle. |
| **The converses of all of these are true as well! Here are two examples:**   1. If two central angles are congruent, then their corresponding chords are congruent. 2. If two chords are equidistant from the center, then the chords are congruent. | |
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